



Eleventh Air Force

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Alaska Civil/Military Aviation Council

Welcome!

Please Check in at Sign-up

Table



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Mr John Crowe



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Col Marc A. Luiken



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Silence cell phones and other accessories

Please ensure you have signed in Presentation information

Hold questions until the end of presentations

Introductions



353d Combat Training Squadron



RED FLAG-Alaska FY10

Update for ACMAC



Mr. Pete “Bruster” Bussa
Operations, 353 CTS

U.S. AIR FORCE



RF-A 10-2

15 - 30 Apr 10



Personnel

- Team Chief: LtCol Sumner
- Asst Chief: Maj Mandich
- Det 1: Capt Peterson
- 18 AGRS: (TBD)

Timeline

- FPC 12 - 15 Jan 10
- Inbriefs 15 Apr 10
- Fam Day 16 Apr 10
- Exercise 19-30 Apr 10

Distant Frontier

Participants (*=CPO // Pending / Confirmed / Declined)

USAF / ANG

*Elmendorf	19 FS	12 x F-15C
*Kunsan	80 FS	10 x F-16
*S-J	335 FS	12 x F-15E
*Elmendorf	525 FS	12 x F-22 (Not likely)
*Barksdale	96 BS	2 x B-52
*Elmendorf	517 AS	3 x C-17
*Kadena	961 AACS	1 x E-3
*Elmendorf	962 AACS	1 x E-3
*Eielson	18 AGRS	12 x F-16
Lakenheath	492FS	12 x F-15E
TTF	TBD	X x KC135

USN

Whidbey
Iwakuni

VAQ 134 4x EA-6B
VMA-211 8x AV-8B

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RF-A 10-3

10 - 25 Jun 10



Personnel

- Team Chief: Maj Nudi
- Asst Chief: Maj Baer
- Det 1: (TBD)
- 18 AGRS: (TBD)

Timeline

- FPC 8-12 Feb 10
- Inbriefs 10 Jun 10
- Fam Day 11 Jun 10
- Exercise 14-25 Jun 10

Distant Frontier

Participants (*=CPO // Pending / Confirmed / Declined)

USAF / ANG

*Kunsan	35 FS	12 x F-16
*Shaw	79 FS	12 x F-16CJ
*Jacksonville ANG	159 FS	12 x F-15C
•*Mt Home	389 FS	12 x F-15E
•*Davis Monthan	354 FS	12 x A-10
*Ellsworth	37 BS	2 x B-1
*Kadena	961 AACS	1 x E-3
*Elmendorf	962 AACS	1 x E-3
*Yakota	36 AS	3 x C-130
*Eielson	18 AGRS	12 x F-16
LAANG	122 ASOS	13xJTAC
TTF	(TBD)	X x KC135

USN

(Base) (Unit) (# x MDS)

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RF-A 10-4

5 - 20 Aug 2010



Personnel

- Team Chief: Maj Mentch
- Asst Chief: Maj Schmidt
- Det 1: (TBD)
- 18 AGRS: (TBD)

Timeline

- IPC 9-11 Mar 10
- FPC 3-7 May 10
- Inbriefs 5 Aug 10
- Fam Day 6 Aug 10
- Exercise 9-20 Aug 10

Distant Frontier

Participants (*=CPO // Pending / Confirmed / Declined)

USAF / ANG

*Misawa	13 FS	12 x F-16
*Whiteman	13 BS	4 x B-2
*Elmendorf	19 FS	12 x F-15C
*Osan	36 FS	12 x F-16
*Elmendorf	90 FS	12 x F-22
*Langley	94 FS	8 x F-22
*Traux Fld ANG	176 FS	8 x F-16
*Kadena	961 AACS	1 x E-3
*Elmendorf	962 AACS	1 x E-3
*Eielson	18 AGRS	18 x F-16

USN

(Base)

(Unit)

(# x MDS)

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Questions?



ALASKA CIVIL/MILITARY AVIATION COUNCIL

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AIRFIELD STATUS UPDATE

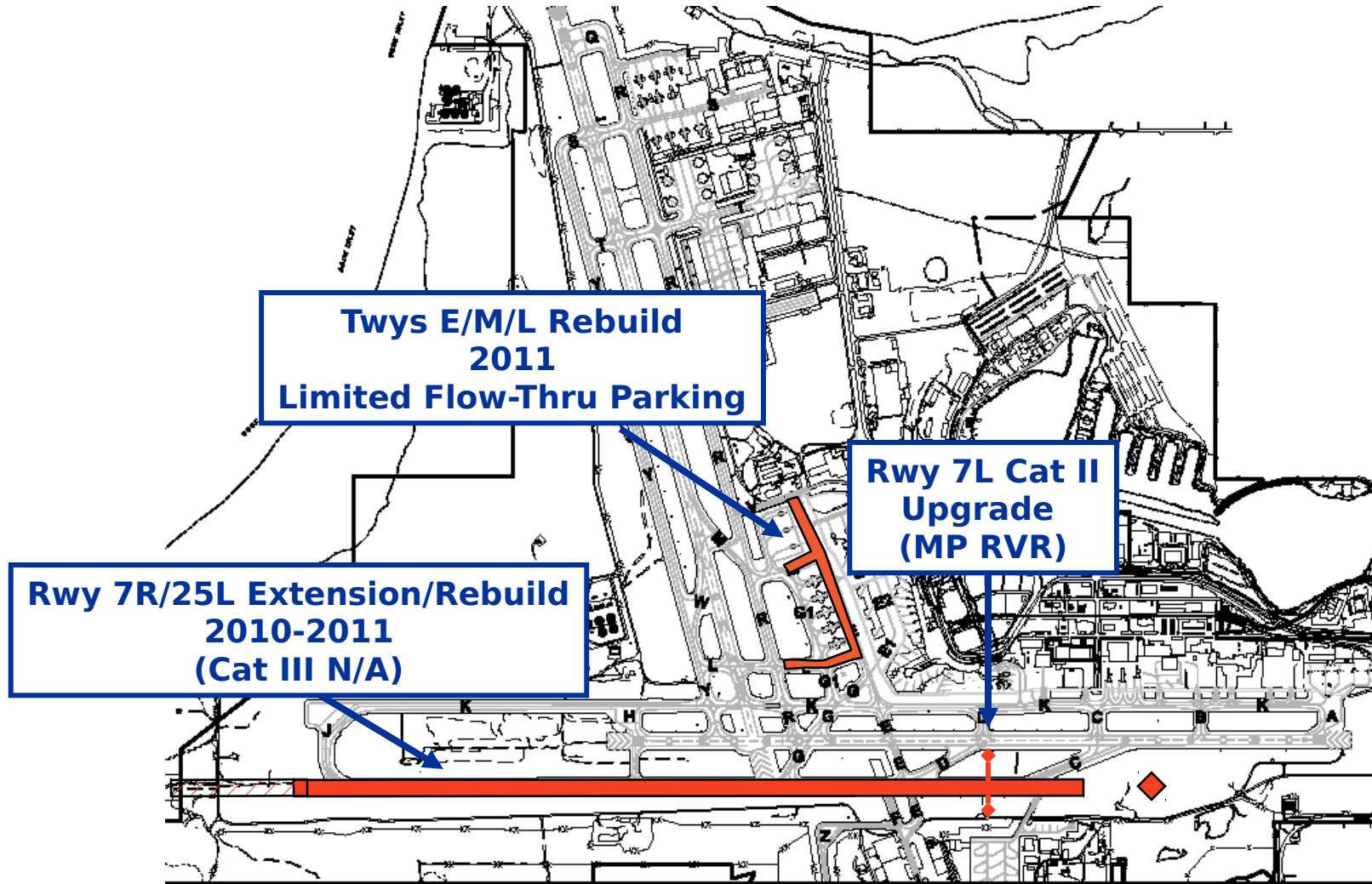


Airport Presentations from:

- Ted Stevens Int'l - Mr. Iagulli**
 - Elmendorf AFB - Maj Cancino**
 - Fairbanks Int'l - Ms. Osborn**
 - Allen Army Airfield - Mr. Knight**
 - LADD Army Airfield - Mr. Ferguson**
-
- Bryant Army Airfield - Mr.**

Ted Stevens International

Major Airfield Projects 2009-2011



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Ted Stevens Anchorage International

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Rebuild/Extend Rwy 7R/25L	East half - Summer 2010 West half - Summer 2011	Cat III N/A during Construction
Rwy 7L Cat II Upgrade	Spring 2010	Cat I Ops until complete FLIP/Flight check dependent
Twy E/L/M Rebuild	Summer 2011	Limited Heavy Acft Parking
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Elmendorf AFB

176 WG ANG MX Complex ECD: Dec 10

Rwy 16/34 Clsd 19 Apr - 15 Oct 10

F22 5 Bay Shelters: ETIC: Jan 10

HS36 Upgrades ECD: 15 Sep 10

Twy K restricted to 3 Wg acft only btwn HS28-27 ECD: 22 Jul 2010

Twy M Clsd HS38 - HS25 1 May - 22

Water Line 176WG Complex 19 Apr - 30

C17 Spt 13-16 ECD: 22 Jul 10

Strategic Impact

Rwy 24 Displaced 1700ft 14 May - 1 Jun 10

Tango Row Clsd until Jan 10

Charlie 10-16 Clsd until Jan 10

Rwy 16/34 Clsd 19 Apr - 15 Oct 10

HS 36 Clsd until 15 Sep 10

C17 Spts 13-16 Clsd until 22 Jul 10

Taxiway M Clsd HS38-HS25 1 May - 22 Jul 10

HS 38/37/26 /13-17 Clsd 1 May - 22 Jul 10

Ops Ramp Spots 6, 7, and 9-12 Clsd until 30 Aug 10

Twy K Clsd btwn HS28-27 ECD: 22 Jul 10

Taxiway E/J/M/U/D1-3/N 34-Elbow /South Loop Clsd 19 Apr - 15 Oct 10

FTE Ramp ETIC 15 Jul 10

2012

Elmendorf AFB

Short-Term

CONSTRUCTION PROJECTS / NAVAIDs	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Replace Cables 4/5/6	19 Apr-15 Sep 10	150 day closure of 16/34
Add helipad	Jul 2010	Additional Alert Msn at EDF
176 WG move to EDF	Dec 2010	Increase C-130/HH-60 ops
Rwy 24 Displaced 1700ft	14 May - 1 Jun 10	8700ft avbl for operations
C17 Spots 13-15 Clsd	Jul 10	Limited Large Frame Parking avbl
Twy M Clsd	4 May - 30 Sep	Two Phases
Ops Ramp South	Aug 2010	Limited Transient Parking
Rwy 06/24	2 Weeks Aug/Sep	Rwy 16/34 Avbl
Twy K	22 Jul	Limited to 3Wg acft

Elmendorf AFB

Long-Term

CONSTRUCTION PROJECTS / NAVAIDS

Complete Fighter
town

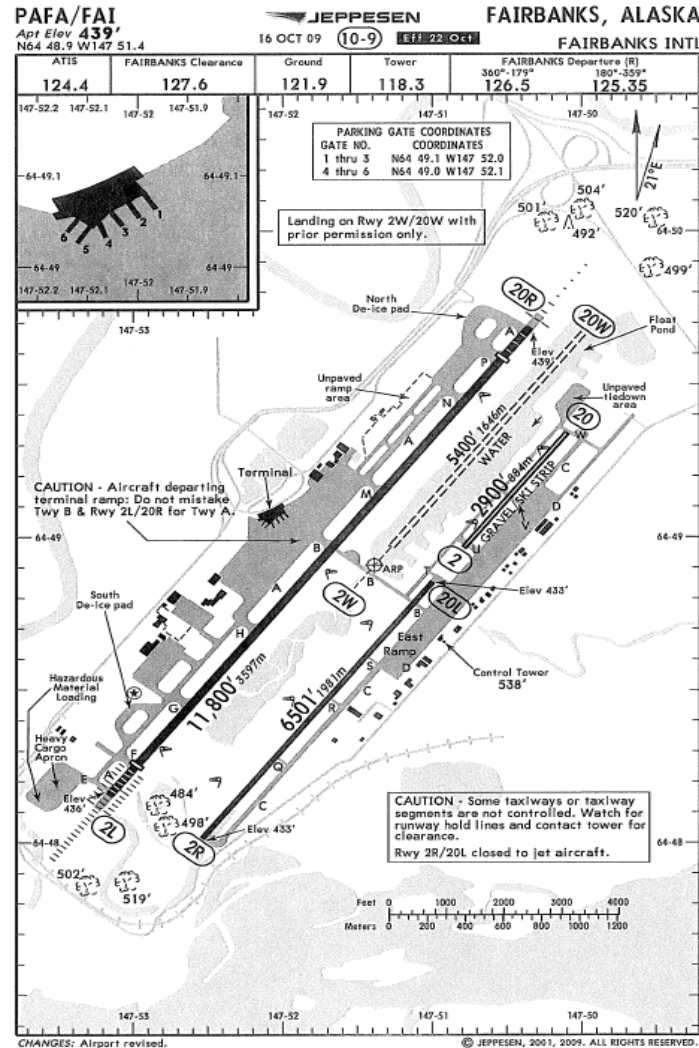
CONSTRUCTION PERIOD

Present-2011
7/8 Bay and Ramp
Avbl Sep 2010

EFFECTS/LIMFACs/ TEMPORARY OPS

Primary departure for
F-22 off Rwy 34.

Fairbanks International



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Fairbanks International

Short-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Taxiway A rehabilitation	Summer 2010	Occasional twy closures
West ramp rehabilitation	Summer 2010	None
East side access control improvements	Summer 2010	None/GA only
ARFF Re-roof	Summer 2010	None
CNA localizer far-field monitor relocation	May 24-Jun 11, 2010	Rwy 2L CAT II/III N/A Rwy 20R CAT I N/A
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Fairbanks International

Long-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS

None!

Allen Army Airfield



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Allen Army Airfield

Short-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Runway 7/25 Hydro-seeding w/Rhino Snot (Envirotac II)	Summer 2010	None – Summer Completion

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Allen Army Airfield

Long-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
None Planned		
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Allen Army Airfield Hydro-seeding Runway 7/25



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Allen Army Airfield Fuel Point



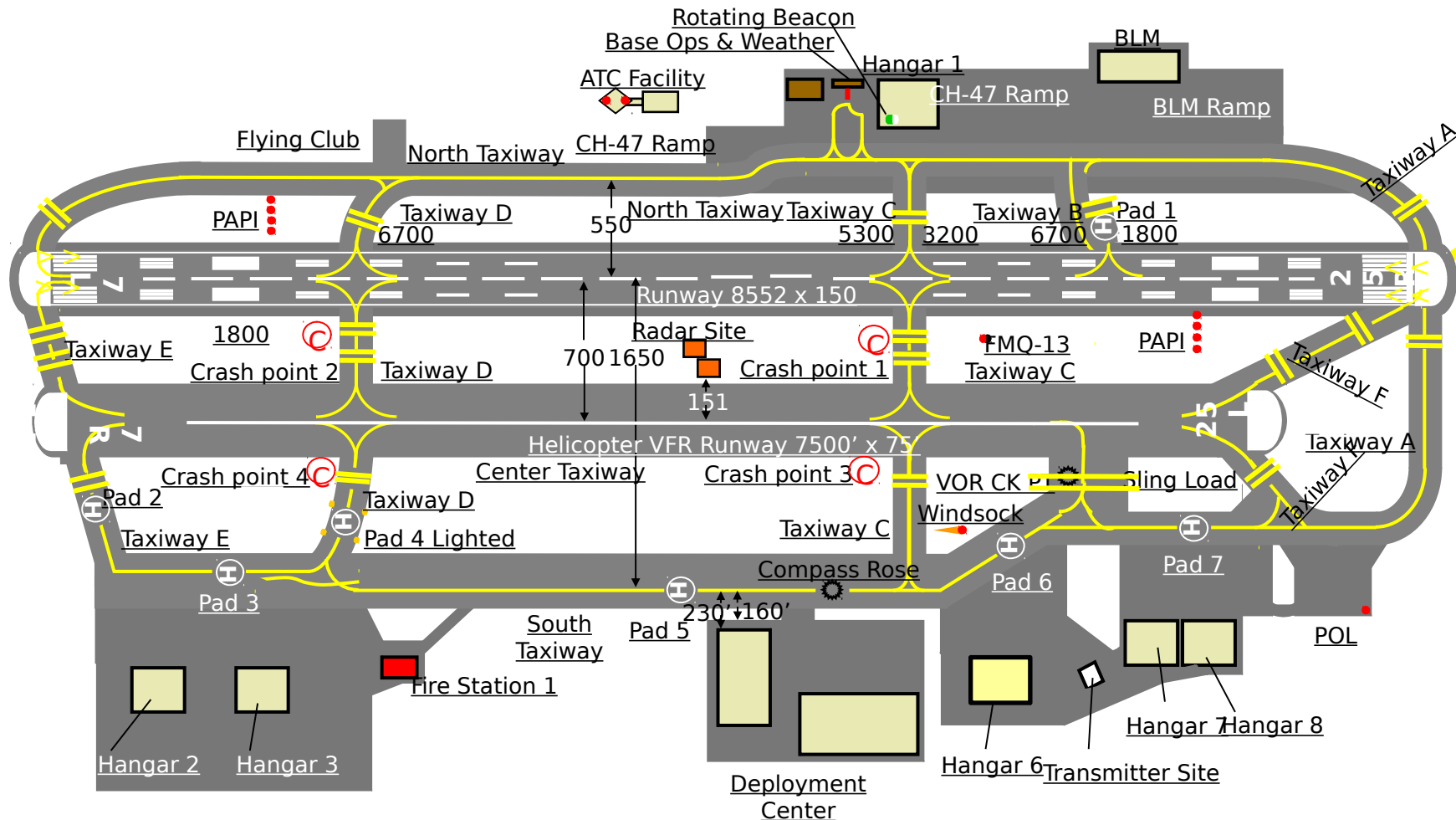
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Allen Army Airfield BAK-12 Aircraft Arresting System



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LADD Army Airfield



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LADD Army Airfield

Short-Term

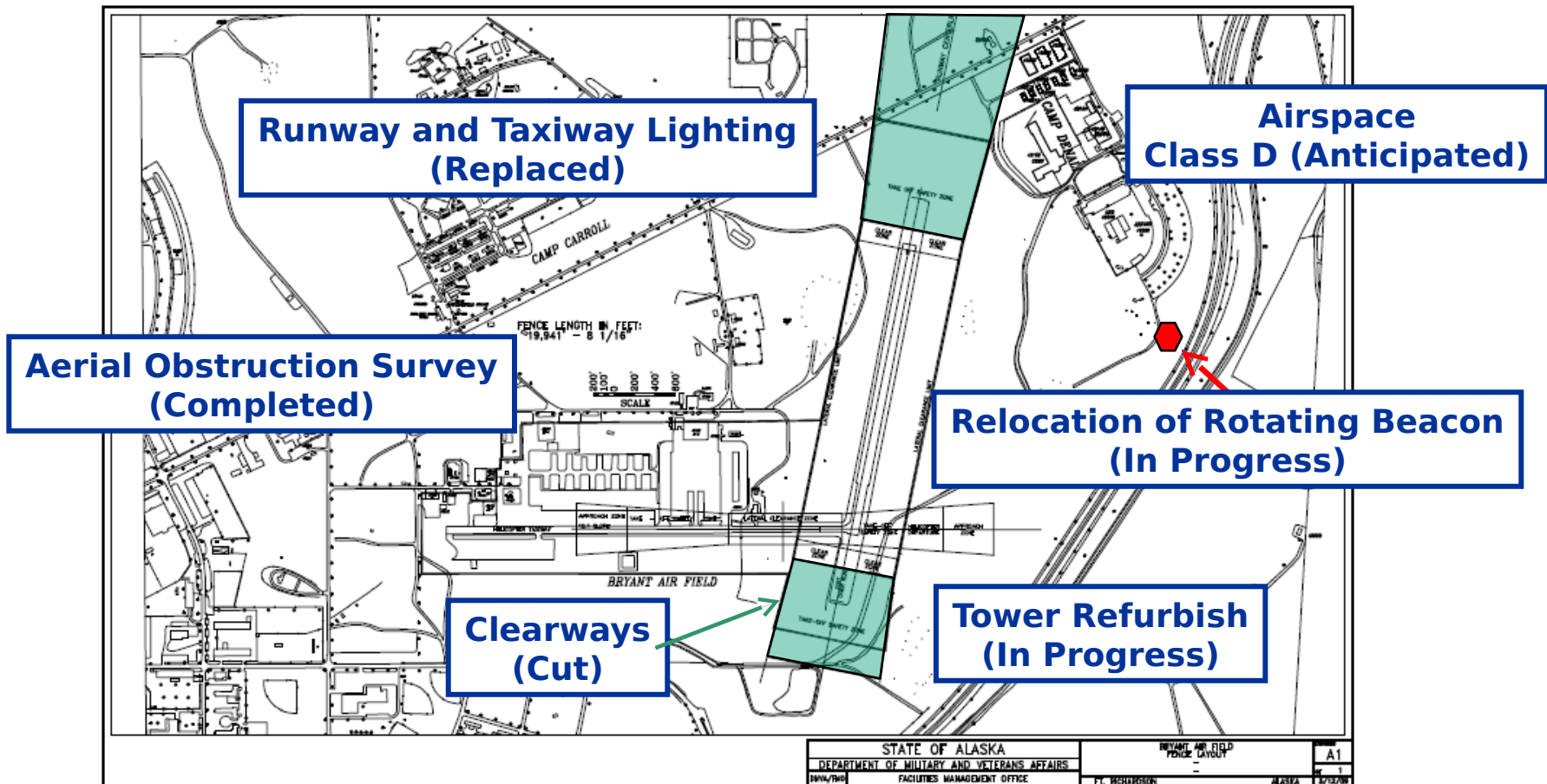
CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Runway 7L ALSF 1	MAR 10-APR 10	N/A
COMPLETE RESTRIPE AIRFIELD (HELICOPTER RUNWAY)	JUN-JUL 10	SHORT TERM CLOSURES OF AFFECTED MOVEMENT AO's
Fence in Airfield	MAY-JUL 10	Advisory NOTAM's
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LADD Army Airfield

Long-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
R&R AFLD LIGHTING REGULATORS	AUG-SEP 10	INCREASED PAR MINIMUMS DURING DARKNESS/IFR
AV BDE FACILITIES	SUMMER 2011-2013	MIN IMPACT/NOTAM
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Bryant Army Airfield



Bryant AAF

Short-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Tower Refurbish/Upgrade	1 February – 20 December	A/F Lighting Sporadic
Relocate Rotating Beacon	Summer 2010	Notam O/S
Hangar 4, HVAC & Floor	1 February – 30 March	Hangar 4 Non- Operational
Hangar 2, Lighting & Floor	30 March – 20 May	Hangar 2 Non- Operational
AWOS Repaired	1 January – 26 January	Operation Limited, Not Certified
Obstacle Mitigation	Summer 2010	None
Passenger Area/Hangar 4	Summer 2009	None
Runway Lighting/New	Summer 2009	None
Taxiway Lighting/New	Summer 2009	None

Bryant AAF

Long-Term

CONSTRUCTION PROJECTS / NAVAIDS	CONSTRUCTION PERIOD	EFFECTS/LIMFACs/ TEMPORARY OPS
Runway Resurface	Summer 2011	No F/W Operations
Taxiway Alfa Resurfacing	Summer 2011	No F/W Operations
Area Obstruction Survey	Summer 2011	Minimal
Hangar 6 Addition/Shops	March 2012	Minimal
Airfield Fencing	Summer 2012	Minimal
Hangar 1 Apron/Taxiway	March 2013	Area Closed
Hangar 6 Apron/Taxiway	March 2014	Area Closed
Hangar 4 Parking/Taxiway	March 2015	Area Closed
Aircraft Loading Apron	March 2016	Minimal



QUESTIONS?

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BREAK TIME



Alaska Civil/Military Aviation Council

AIRSPACE UPDATE

Mr. John Crowe
611 AOC/CODK



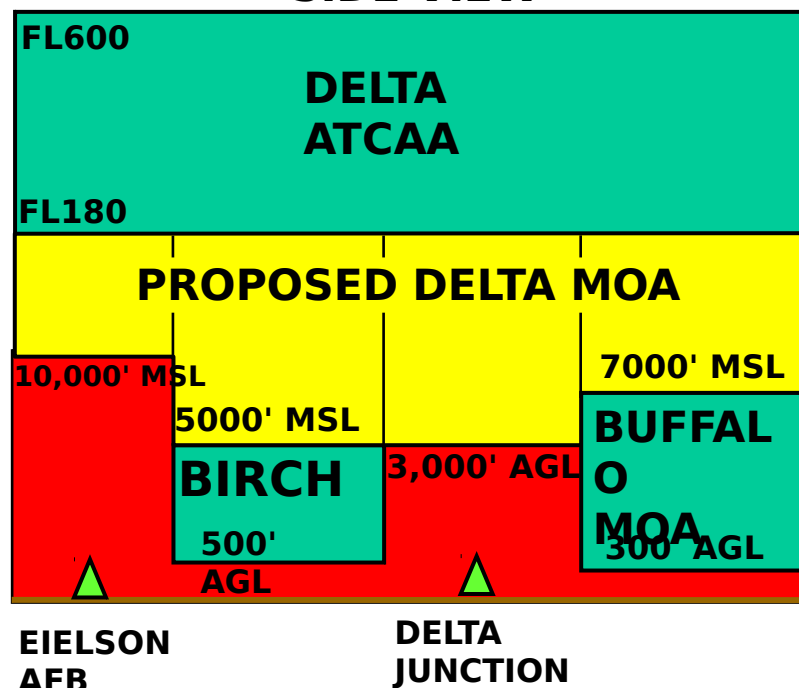
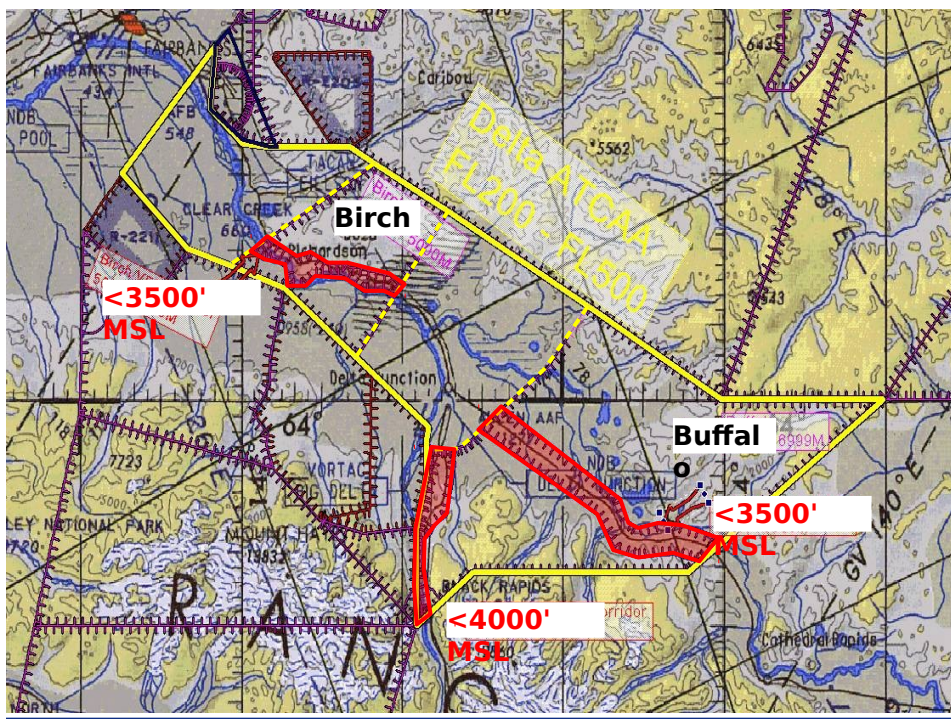
Overview

- 1. Delta MOA Update**
- 2. Military Training Route Update**
- 3. JPARC EIS Update**
- 4. Taskers**



Delta T-MOA

- **Charted Delta MOA**
 - **FAA decision ~ July 2010**
 - **Activated separately only for MFEs**
 - **Identical to T-MOA used in 2007 - 2010**
- SIDE VIEW**



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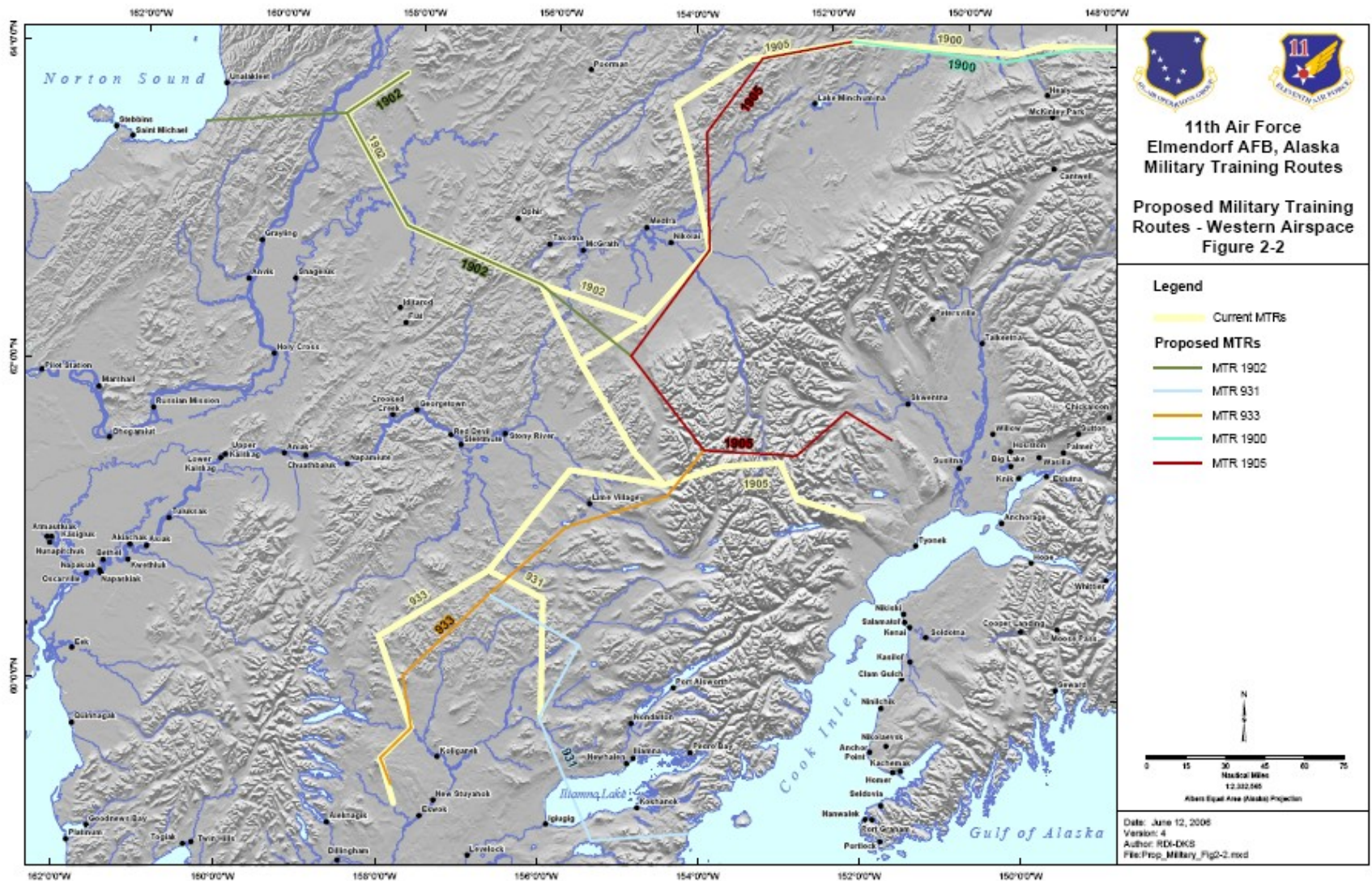


Military Training Route (MTR) Update

- **Final FAA Package approved in Sep 09**
 - **Modified MTRs to avoid noise/environmental sensitive areas**
 - **Extended MTR to coast line on two routes**
 - **Became effective on 17 Dec 09**
 - **Information available on the Alaska Military Airspace web page www.elmendorf.af.mil then under featured links select “Alaska Airspace Info” and via NOTAM**
 - **Some routes not accurately reflected on Sectionals until next publishing (4 Jun 2010 for ANC and FAI Sectionals)**
 - **Remember, MTR lines on map are centerline only, aircraft can be 5nm either side of**
-

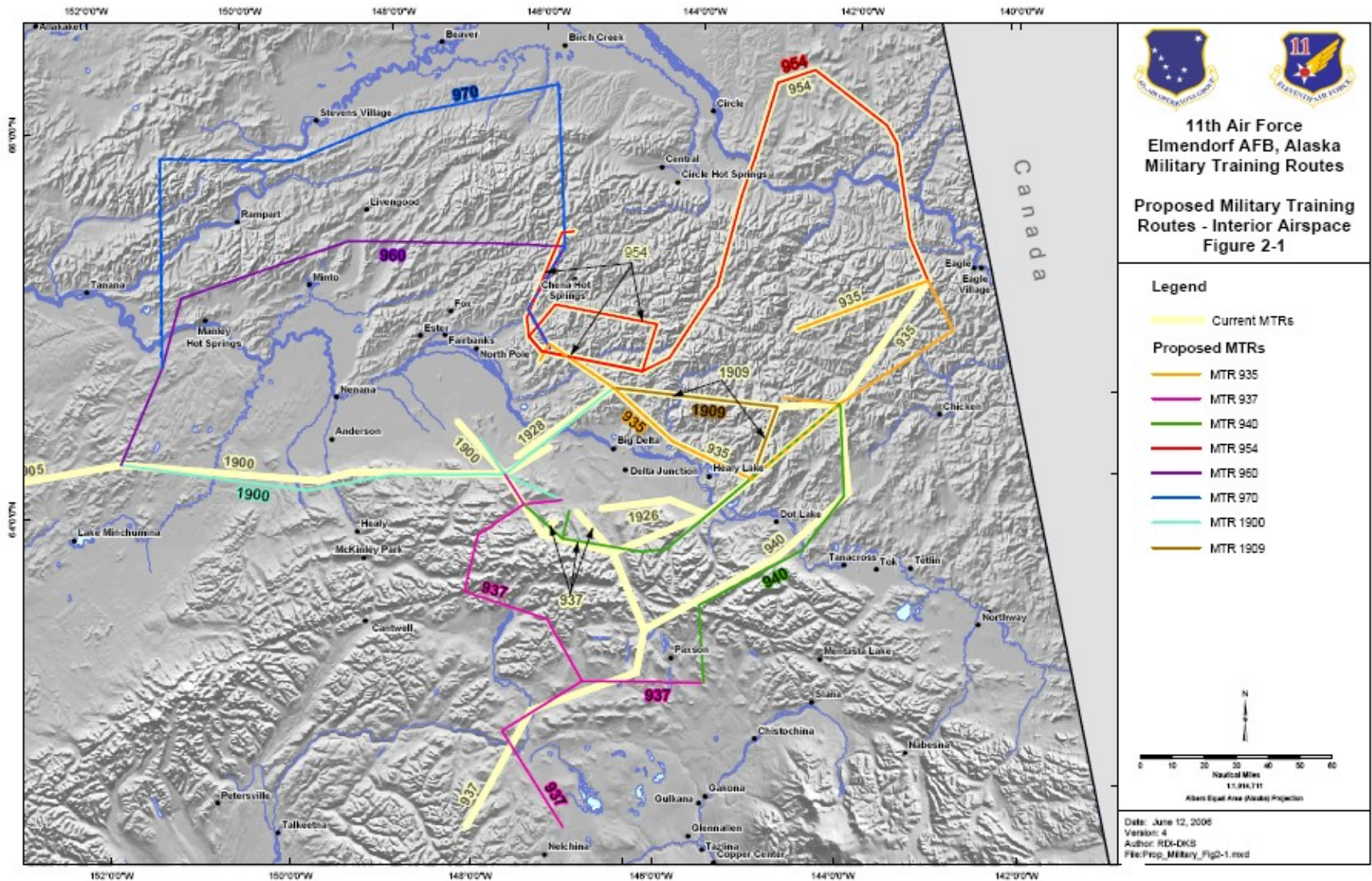


SOUTHERN MTR's OVERVIEW





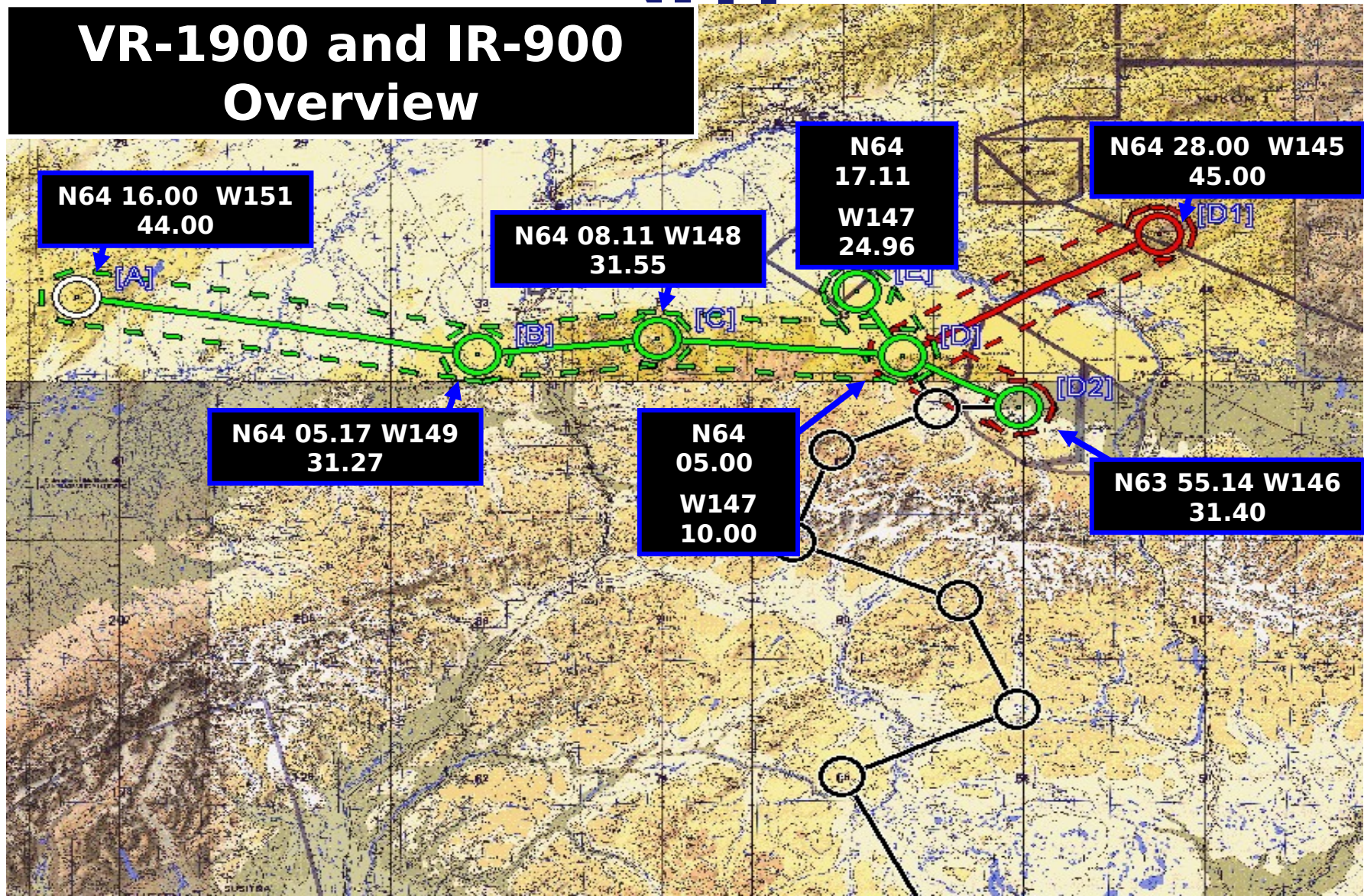
NORTHERN MTR's OVERVIEW





EXAMPLE OF INFO AVAILABLE ON WEB SITE

VR-1900 and IR-900 Overview





JPARC EIS

- **Umbrella JPARC EIS NOI expected Summer 2010**
 - **Look at cumulative affects for DoD training activities within Alaska including Military Airspace.**
 - **Allow for the development/management of DoD training assets to meet the needs of**
 - **Joint DoD training and exercises**
 - **New and improved technology**
 - **Testing requirements**
 - **Increase in military assets in Alaska**
 - **New aircraft with enhanced capabilities**
 - **We are currently defining actions required to fill “Capability Gaps”**
 - **JPARC Master Plan expected complete in June**
- **Military is obligated to American people to be good stewards of airspace and**



Taskers

- **Pamphlets**
- **IFR Corridor from FAI to Eagle**
- **GPS Jamming**

QUESTIONS?

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GPS Jamming for RFA 10-04

***Maj Kelly Amedee
Chief, Space and Information
Operations***

U.S. AIR FORCE 353d Combat Training Squadron



Overview



-
- **Jamming Specification for RF-A 10-4**
 - **Effects Plots**
 - **Objectives**
 - **Jamming ROE**
 - **Cease Buzzer Procedures**
 - **Clarifications - NOTAMS vs actual affects**
-



GPS Jamming Specifications



Number of Transmitters	1-4 (may be on simultaneously)
Transmit Frequencies	GPS L1 (1575.42 MHz) and L2 (1227.6 MHz)
Operator Bandwidth for each transmitter	0-20 MHz for each carrier
Signal Type	Bi-phased Shift Keyed (BPSK)
Signal Duty Cycle	1:1
Pulse Repetition rate	Not pulsed
Tone Spacing	N/A
Power input to antenna(s)	Up to 21 dbw (includes 2dB of cable loss to antenna)
Modulation/coding techniques	2 MHz BPSK with noise
Antenna Specifications	See slide 4
Site Elevation	Less Than 3,000 feet MSL
Antenna Height (AGL)	No greater than 12 ft
Pointing Az/EI for each Antenna	Varying Az between 0 and 180 degrees
Coordinates for each antenna	See Slide 5
Ground Track Pattern	All Transmitters are ground-based



Antenna Specifications



Type	Polarity	Main Beam Gain (Dbi)	Pattern (AZ X El deg)
Disc Cone	RHC	3	360 x 90
Biconical	Vertical	4	360 x 60
Flat Spiral	RHCl	7	65 x 65
Biconical Reflector	Horizontal	10	45 x 120
Biconical Reflector	Vertical	10	120 x 45
Helical	RHC	14.5	30 x 30



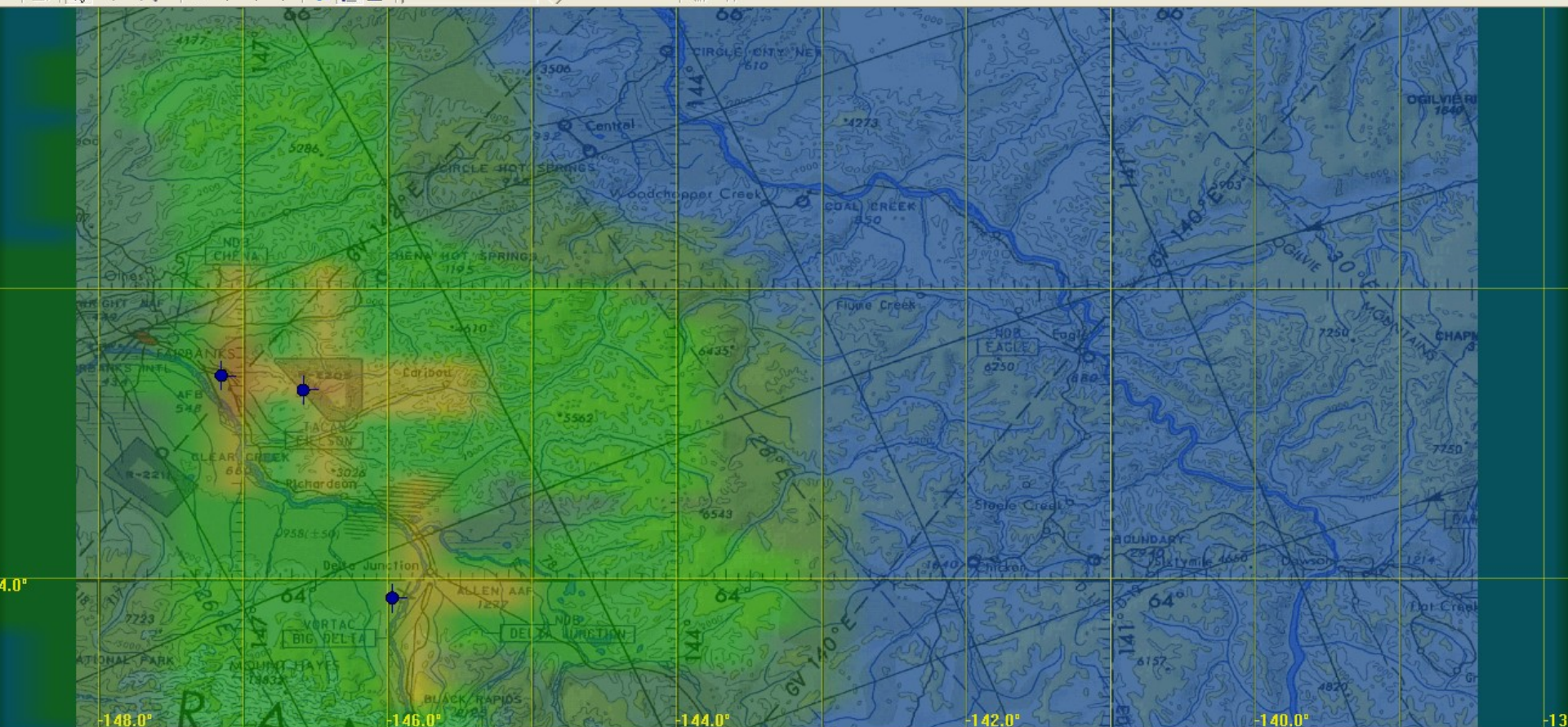
Coordinates of each Antenna



Northern Container		Southern Container	
SW Corner – N64 34 00 W146 48 00		SW Corner – N63 49 00 W145 58 00	
NW Corner – N64 39 00 W146 48 00		NW Corner – N63 56 00 W145 58 00	
NE Corner – N64 39 00 W146 35 00		NE Corner – N63 56 00 W145 45 00	
SE Corner – N64 34	Eielson AFB Container		49 00 W145 45
	SW Corner – N64 38 00 W146 48 00		
	NW Corner – N64 42 00 W147 09 00		
	NE Corner – N64 42 00 W147 04 00		
	SE Corner – N64 38 00 W147 01 00		



RF-A 10-4, 2202, 2205 and Eielson (0-180) P(Y), L1 @ 5K MSL



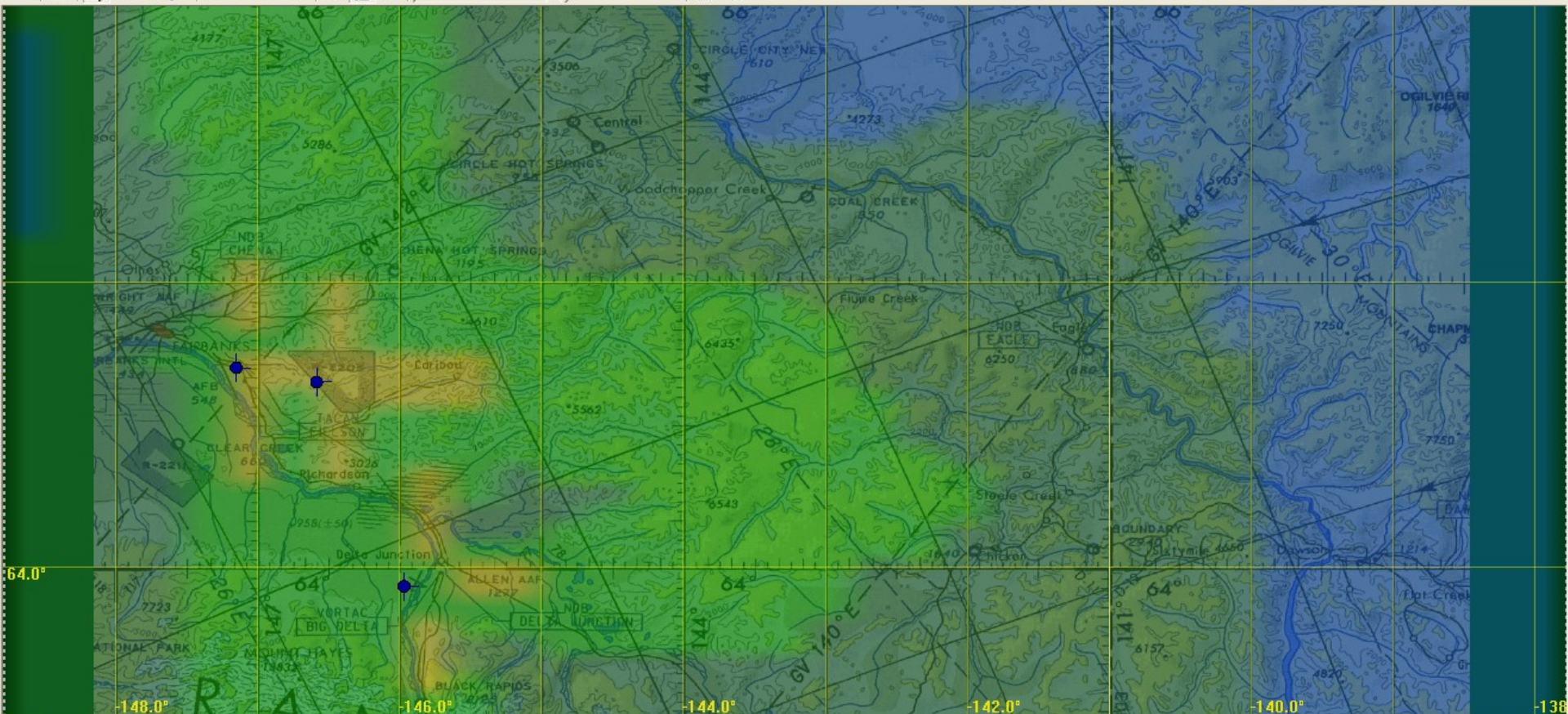
Contour Legend

Metric: P(Y)-L1	Scenario:	Latitude Increment: 00° 04.070874'	> 90.0 dB	40.0 - 50.0
Production Date: 2010-03-30 08:32:10	Route: MP - J2S Contour	Longitude Increment: 000° 19.432944'	80.0 - 90.0	30.0 - 40.0
Almanac File: SEM week 407	Start Time: 30 Mar 2010 00:00:00Z	Number of Channels: All In View	70.0 - 80.0	20.0 - 30.0
OF File: 2009_300_010543_v02	End Time: 30 Mar 2010 00:00:00Z	Mask Angle: 5 degrees	60.0 - 70.0	10.0 - 20.0
AF File: N/A	Altitude: 5000 ft msl	Signal Modulation: BPSK	50.0 - 60.0	0.0 - 10.0

PRN: 25 Outage: 26 Oct 2009 13:38:00 to Until Further Notice



RF-A 10-4, 2202, 2205 and Eielson (0-180) P(Y), L1 @ 20K MSL



Contour Legend			
Metric: P(Y)-L1	Scenario:	Latitude Increment: 00° 04.070874'	<div>> 90.0 dB</div> <div>80.0 - 90.0</div> <div>70.0 - 80.0</div> <div>60.0 - 70.0</div> <div>50.0 - 60.0</div> <div>40.0 - 50.0</div> <div>30.0 - 40.0</div> <div>20.0 - 30.0</div> <div>10.0 - 20.0</div> <div>0.0 - 10.0</div>
Production Date: 2010-03-30 08:32:30	Route: MP - J2S Contour	Longitude Increment: 000° 19.432944'	
Almanac File: SEM week 407	Start Time: 30 Mar 2010 00:00:00Z	Number of Channels: All In View	
SOF File: 2009_300_010543_v02	End Time: 30 Mar 2010 00:00:00Z	Mask Angle: 5 degrees	
PAF File: N/A	Altitude: 20000 ft msl	Signal Modulation: BPSK	
PRN: 25 Outage: 26 Oct 2009 13:38:00 to Until Further Notice			



GPS Objectives



- **Primary Objectives**
 - **Blue Force** - Find, Fix, Target, Track, Attack and Assess effects against Time Sensitive Targets
 - **Red Force** - Provide realistic denial of GPS navigation and timing signals by emulating validated threat
- **Jamming Length**
 - A minimum of 30 minutes but not to exceed 2 hours



Jamming ROE



- **Safety is paramount**
- **Jam only during coordinated times**
 - **NOTAMS will specify times**
 - **Found in Center NOTAMS and Eielson Local**
- **Jam Command and Control requires positive communications**
 - **Adversary Space Mission Commander ensures C2**
 - **Co-located with White Force mission director**
 - **Co-located with Senior FAA tech advisor @ Eielson AFB**
 - **Multiple communication methods with jam teams**
 - **“Cease Buzzer” procedures thoroughly briefed/executed**
 - **527 SAS will call SUAS control prior to each push with exact locations for that day and daily plot**

Any Safety Issue = Jam Off



Cease Buzzer Procedures



- **Anyone can make a “cease buzzer” call**
 - **Radio**
 - **Range Control Frequencies VHF = 125.3, UHF = 229.4**
 - **GUARD (UHF 243.0/ VHF 121.5)**
 - **Telephone**
 - **Red Flag-Alaska White Force Control Center**
 - **DSN 377-3125**
 - **Co-located with Adversary Space Mission Commander**
 - **Co-located with PARC Range Control**
- **SUAS/Noise Complaint Line**

 - **1-800-758-8723**



Clarifications



- **At RF-N on the NTTR, the 527th routinely see effects on the civilian code at about 70 nm from the jammer to the aircraft at about 20k MSL**
 - **The NOTAM is determined by the FAA,**
 - **They use the RPM analysis (GPS-effect prediction software), prior experience and our EA request**
 - **RPM is the only prediction model accepted by the FAA per CJCSM guidance. That being said, the results it produces are on the cautious side**
-



QUESTIONS?



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CLOSING COMMENTS

Col Marc A. Luiken